

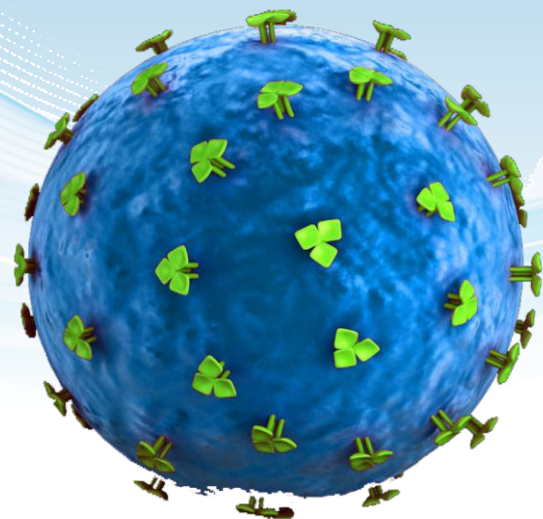


ERA'S

RESEARCH NEWSLETTER

IN COLLABORATION WITH
AMERICAN UNIVERSITY OF BARBADOS(AUB)

VOL - 2 NO - 1 2015



Chief Editor's Note : Prof. A.N. Srivastava

First it was Telomerase enzyme regulating Telomere length & repair of DNA for which Prof. Elizabeth Blackburn received Nobel Prize. Now it is Fumerase enzyme which has been found to be responsible for DNA repair. We have advanced much ahead from just knowing about XRCC-1 and XRCC-3 DNA repair genes. These fumerase enzymes can perform functions other than designated to them in genetics.

Prof. Zhimin. Lu, M.D, Ph.D, Professor of Neuro-Oncology & his team in Nature Cell Biology 2015 have reported their work on Fumerase enzyme & its product Fumerate. On the stem cell front, scientists have discovered stem cells and their signaling pathways for bone & Cartilage. Now Cancer Stem Cells in various cancers have become the target of regulation and treatment. Only deep understanding of their working at Chemical-Genetic & Molecular Biology level will reveal the mysteries of cell biology & are thus worth pursuing by basic scientists/clinical researchers in ELMC&H, Lucknow, as their future vision.

The young researchers of Era, a team of 6 undergraduate students have brought laurels to the college in Medicon-2015 held at Nagpur-India, by winning maximum number of trophies won by any single college. The faculty is achieving accolades on research front and I hope, more and more young teachers will come forward to do research in field necessary for our country and mankind.

From Editor's Desk : Dr. Navbir Pasricha

The beginning of the new Academic year of 2015 has special meaning for Era's Lucknow Medical College and Hospital. On the one hand, it indicates that ELMC&H has proven its capacity, potency and consistency to maintain its name on the list of best medical Institutions in the country as well as achieving the distinction of having its own scientific journal and research news letter. Both of these serve in dissemination of research findings which are relevant among researchers and persons engaged in delivery of health care at various levels.

In this issue apart from our regular features, we have specially published a write up from one of our own students, now an intern, which can be an inspiration for other medical students and young doctors. I would again like to request our learned faculty members to please share information of their achievements and recent developments in their respective fields.

Global Research News

Researchers identify stem – like progenitor cells that exclusively form heart muscle

Scientists from Perelman School of Medicine at the University of Pennsylvania have taken an important step towards a future therapy for failing hearts using stem-like cells and associated growth factors. They have defined the progenitor cell that is committed to make heart muscle, which they term cardiomyoblast and this they call as Hopx. Initially they thought that Hopx would be a multipotent progenitor cell and were surprised to know that it was marking only the cells that were going on to make heart muscle. This novel finding may include not just cell based therapy but also implantable bio-engineered patches of heart muscle.

Study finds link between citrus fruit consumption and melanoma risk

A new analysis of two long-term studies has revealed a potential association between malignant melanoma risk and frequent consumption of grapefruit and oranges. The study found that compared with people who consumed these fruits less than twice a week, those who had them at least 1.6 times a day were at a 36% higher risk of developing melanoma. As reported in the *Journal of Clinical Oncology*, after a follow-up period of 26 years, 1,840 participants were diagnosed with melanoma. A higher overall intake of citrus fruit was associated with an increased risk of melanoma in both men and women. Of the citrus fruits, grapefruit was the most strongly associated with increased melanoma risk. Even after adjustment for factors such as age, geographic location, alcohol intake, smoking and sun exposure, the link between citrus fruit consumption and melanoma was still strong.



HIV Vaccine Progress in Animal Studies

HIV, the virus that causes AIDS, attacks and destroys immune cells. For those infected with HIV, antiretroviral therapy helps to prevent the virus from multiplying. But scientists haven't yet been able to design a vaccine that protects people from HIV. Researchers have identified human antibodies that can neutralize multiple strains of HIV by binding to a small portion of gp120. The antibodies fail to control the virus in the people who make them, but they can prevent infection in animal models. Researchers have been studying these antibodies in the hope of designing a vaccine that prompts the human immune system to mount an effective defense against HIV.

Intramural Faculty Projects Approved by Institutional Ethical Committee

1. Color Doppler Study of Endometrial Spiral Artery in Unexplained Infertility, Dr. Shivani Singh, Obstetrics & Gynecology
2. Comparison between two regimens of second trimester medical abortions-mifepristone with misoprostol vs misoprostol alone, Dr. Mona Asnani, Obstetrics & Gynecology
3. In-Vitro effects of Azadirachta Indica (Neem) on breast cancerous cell line and influence of alkaline pH, Dr. Aparna Mishra, Biochemistry
4. Establishment of Reference Values for Liver Function Tests in Apparently Healthy North Indian Population, Dr. Nikhil Gupta, Medicine
5. Prevention of endothelial cell injury in vitro model of cerebral ischemia with diabetes using Human brain microvascular endothelial cells, Dr. Ali Ahmad, Pharmacology
6. Isolation and Purification of Lagenin, a Novel Ribosome-Inactivating Protein from Seeds of Bottle Gourd (*Lagenaria siceraria*) and of its Anticancer Activity on Human Breast Cancer and Hepatoma Cells, Dr. Rumana Ahmad, Pathology
7. Pattern of Anaemia Among Children of Rural Lucknow, Dr. Sharique Ahmad, Pathology
8. Association of stem cell markers CD34+, CD133 and CD44 expression with clinicopathological profile in lung cancer, Dr. A.N. Srivastava, Pathology
9. Epidemiology, Characterization and Drug Resistance Profiling of Candida Isolates from Vulvovaginitis at a Tertiary Care Centre, Dr. Vinita Khare, Microbiology
10. "Determination of combined effect of pH withania somnifera on Human Breast cancer cell line MDA MB-231." Mr. Mohsin Ali Khan
11. A study of changes in viability of cell line culture through cell surface electric charge Mr. Mohsin Ali Khan

Lymphatic Vessels Discovered in Central Nervous System

Scientists have discovered that the brains of mice contain functional lymphatic vessels that can carry fluid and immune cells from cerebrospinal fluid. Further work will explore whether problems in this system might play a role in neurological disorders such as Alzheimer's disease, meningitis, and multiple sclerosis. To better understand the connections between the lymphatic system and the brain, a team led by Drs. Antoine Louveau and Jonathan Kipnis of the University of Virginia School of Medicine used high-powered microscopes to examine the brains of mice. Their research was funded in part by NIH's National Institute on Aging (NIA) and National Institute of Neurological Disorders and Stroke (NINDS).

STS ICMR Project sanctioned in 2015

1. Correlation Of ALDH1 Stem Cell Marker In Urinary Bladder Cancer With Invasiveness. Miss Anum Aziz, Dr. Noorin Zaidi, Pathology
2. Fungal infections in Oral scraping smears in patients of Oral Cancers and Pre-Cancers, Miss Chitra jain, Dr. Nishi Tandon, Pathology
3. Association of glucocorticoid receptor gene polymorphism in type 2 diabetes mellitus among north Indian population, Miss Kisa Saiyada, Dr. S. Tasleem Raza, Biotechnology
4. A Study of SLC22A1 Polymorphism In Patients of Type 2 Diabetes Mellitus in North Indian Population, Miss Monica Sharma, Dr. Pooja Shukla, Pharmacology
5. To study insulin resistance in patients with viral hepatitis patients and type 2 diabetes mellitus, Miss Zara Ahmad, Dr. Devendra Kumar, Medicine
6. Stem Cell Marker CD 133 in Cervical Cancer Pathology Mr. Paarth Garg, Dr. Fiza Mustaqim.

Recent developments in ELMC&H



Era's Journal of Medical Research being released by Shri Ram Naik, The Honourable Governor of UP





**Prof. Stuart Ralston, Editor,
Davidson's Text Book Of Medicine
giving guest lecture to faculty
and students. He commented that**

“The virtual patient, virtual doctor and procedures are a fantastic idea ! This could become very popular. I congratulate you all for designing such an innovative programme & Method of learning”



**Workshop On Ethics In Medical Research
Held on 16th april 2015**



**Advanced NRP course conducted by
Department of Pediatrics and Neonatology**

Achievement At National Platform

Ninth International Undergraduate Medical Students Research Conference (Medicon 2015) was held in Nagpur, NKP Salve Institute Of Medical Sciences and Research Centre from 29th of July to 1st of August. Students from all over India participated in research paper presentation, teacher student panel discussion, debate and photo essay competition.

Era's Lucknow Medical College was represented by eight students who won 5 trophies in the fields of :-

- Best presentation
- Teacher student panel discussion
- Debate and photo essay competition
- Research presentation

All the students of ELMC&H received certificate of participation and performance of Era's Lucknow Medical College was best amongst all the colleges which participated. The students who won the trophies are :-

- Shivam Mehra (2 trophies)(1st prize in teacher student panel discussion ,2nd prize in photoessay competition)
- Vedansh Chandra (1 trophy)(1st prize in research paper presentation)
- Shipra Shukla (2 trophies)(1st prize in photo essay competition, 2nd prize in debate)

The other students who participated were :-

1. Anjali Giri ,2.Chandni Jain, 3.Parth Garg, 4.Aliya Gul, 5. Amber Rana



Following were the mentors & guides of the above students :

- ☞ Prof. A.N. Srivastava
- ☞ Prof. Nirupma Lal
- ☞ Dr. Sharique Ahmad



Dr. Saakshi Chhabra, S.R. , Radiology bagged 1st prize in oral presentation at Cme of Indian Radiological and Imaging Association at SGPGI, Lucknow

REQUEST

Please send information about your achievements in the field of research, any awards won, recognition gained and honours bestowed upon you for possible inclusion in Era's Research Newsletter.

Ranking of Medical College in India, 2015



ERA'S LUCKNOW MEDICAL COLLEGE & HOSPITAL

TIMES MEDICAL - i3RC TIMES

TOP 11 Private Medical Colleges Rankings 2015

RANK	College Name	Location
1	Christian Medical College(CMC)	Vellore
2	St. John's Medical College(CMC)	Bangalore
3	Karturba Medical College(KMC)	Manipal
4	Christian Medical College(CMC)	Ludhiana
5	Sri Ramachandra Medical College & Research Institute(SRMC)	Chennai
6	Karturba Medical College(KMC)	Mangalore
7	M.S.Ramaiah Medical College(CMC)	Bangalore
8	Amrita Institute of Medical Sciences & Research Centre	Kochi
9	SRM Medical College,Hospital & Research Centre	Kancheepuram
10	Army College of Medical Sciences	New Delhi
11	Era's Lucknow Medical College(ELMC)	Lucknow

OUTLOOK ANNUAL PROFESSIONAL TOP 25 MEDICAL COLLEGES RANKING 2015

Outlook's 2015 survey of India's Best Professional Colleges ranked Era's Lucknow Medical College 25th amongst India's Top 25 medical colleges.

THEWEEK The Week Hansa Survey 2015

TOP 11 Private Medical Colleges

RANK	College Name	Location	Composite score 2015
1	Christian Medical College(CMC)	Vellore	578
2	Karturba Medical College(KMC)	Manipal	475
3	St. John's Medical College(CMC)	Bengaluru	428
4	Sri Ramachandra Medical College & Research Institute(SRMC)	Chennai	376
5	Amrita Institute of Medical Sciences & Research Centre	Kochi	372
6	Mahatma Gandhi Institute of Medical Sciences	Wardha	358
7	Dayanand Medical College & Hospital(DMC)	Ludhiana	356
8	Christian Medical College(CMC)	Ludhiana	354
9	Karturba Medical College(KMC)	Manglore	353
10	M.S.Ramaiah Medical College(CMC)	Bengaluru	346
11	Era's Lucknow Medical College(ELMC)	Lucknow	307

Although the average age of the Top 30 Medical Colleges ranked by The Week - Hansa Research Survey 2015 is more than 72 years, Era's Lucknow Medical College & Hospital is just 14 years old. As a result, ELMC has the distinction of being the youngest medical college amongst the ranked institutions.

Upcoming Conferences

☞ **National Conference on Stem Cell Research: Concepts and Applications 6-11-2015, Era's Lucknow Medical College & Hospital, Lucknow**

☞ **Soft Embalming for Cadaveric Surgery 23-11-2015, Department of Anatomy Era's Lucknow Medical College & Hospital, Lucknow**

Editorial Board

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